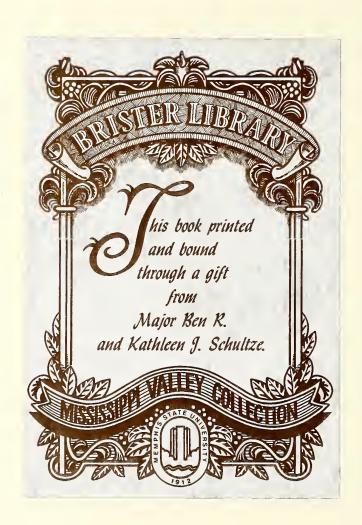
ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY INTERVIEWS WITH SAM L. BREEDEN

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ORAL HISTORY RESEARCH OFFICE
MEMPHIS STATE UNIVERSITY





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PLACE Knoxuille, Tenn.

DATE April 6, 1973

(Interviewee)

(For the Mississippi Valley Archives of the John Willard Brister Library of Memphis State University)



THIS IS A PROJECT OF THE ORAL HISTORY RESEARCH OFFICE MEMPHIS STATE UNIVERSITY. THIS PROJECT IS "AN ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY."

THE PLACE IS KNOXVILLE, TENNESSEE AND THE DATE IS APRIL 6, 1973. THE

INTERVIEW IS WITH MR. SAM L. BREEDEN AND THE INTERVIEW IS BY DR. CHARLES

W. CRAWFORD, DIRECTOR OF THE MEMPHIS STATE ORAL HISTORY RESEARCH OFFICE.

TRANSCRIBED BY BETTY WILLIAMS. INTERVIEW #1

DR. CRAWFORD: Mr. Breeden, I suggest we start by getting some information about your background and then we will get into your experiences with the Tennessee Valley Authority. You might start with when and where you were born and give some information about your early life, your education and your work experience up until October, 1934. Then we will get into your experiences with TVA.

MR. BREEDEN:

I was born December 21, 1898 near Decatur, Tennessee,

Meigs County. I received my primary education in

public schools at this location and I also fininshed high school in Meigs

County High School in May 1917. I entered the University of Tennessee

College of Engineering in September, 1917 and graduated from the University of Tennessee June 10, 1921 with a degree of Bachelor of Science in

DR. CRAWFORD:

After graduation from the University of Tennessee

with your engineering degree Mr. Breeden, what did

Civil Engineering.



you do?

MR. BREEDEN: I started to work for the Tennessee State Highway

Department. This date is June 15th, 1921. I worked

continuously with the Tennessee State Highway Department until October 16,

1934 at which time I started to work for the Tennessee Valley Authority.

DR. CRAWFORD: I believe you were with the Highway Department at the

same time that Neil Bass was connected with it?

MR. BREEDEN: That is correct, sir.

DR. CRAWFORD: During this work with the Tennessee Highway Department

what were your duties?

MR. BREEDEN: My duties were of various natures. They were location

of county and state highway and federal-aid highways

and my later years with the Tennessee Highway Department was on construction of large steel and concrete bridges. The bridges that I worked on were

five of the largest bridges from 1928 until 1934--bridges across the Hiwassee

River, Tennessee River, Clinch River, Holston River and French Broad River.

The last one that I worked on before starting with Tennessee Valley Author-

ity was across the French Broad River between Newport, Tennessee and Morris-

town, Tennessee.

DR. CRAWFORD:

You certainly traveled over the state. Did you not

live in one place throughout this time?

MR. BREEDEN:

No, I [lived] dozens of places.

DR. CRAWFORD:

What changes did you notice in the state's highway

system during this period?



MR. BREEDEN: Well, the State Highway Department when I started

to work in 1921, was composed of very few people.

The Highway Department itself was really just starting then. At the time

I left in 1934 it had grown, in spite of the Depression, into a large or-

ganization and they were doing lots of work.

DR. CRAWFORD: I suppose it wasn't established until the automobile

became important in Tennessee.

MR. BREEDEN: That's right

DR. CRAWFORD: How much paved highway was in the state when you

started?

MR. BREEDEN: I really don't know what the figure would be. I

hesitate to say.

DR. CRAWFORD: It was not very much, I suppose?

MR. BREEDEN: No sir, it wasn't. That is correct.

DR. CRAWFORD: I suppose you were with the Highway Department when

the first pavement was built all the way across the

state, weren't you?

MR. BREEDEN: That's right.

DR. CRAWFORD: Did your duties remain about the same throughout

this whole period?

MR. BREEDEN: That's correct. I would be located at one place

usually for three to five months on a location of

maybe a project that would run from ten to fifteen miles, and probably move on to a second job just like that for another five to six months.



DR. CRAWFORD: What part of the state did you like best? I know

you saw a great deal of it.

MR. BREEDEN: Well, there used to be five divisions in this Tennessee

Highway Department and I worked in all five of them.

Of course, my great liking is East Tennessee.

DR. CRAWFORD: When did you first hear about the Tennessee Valley

Authority?

MR. BREEDEN: Shortly before May of 1933.

DR. CRAWFORD: That was very early. How did you hear about it and

what did you learn?

MR. BREEDEN: Just through the newspaper articles and that was in

the Depression times and everybody, all engineers

especially, were looking for a better job and in hopes of having new experi-

ences.

DR. CRAWFORD: Of course, you already had a secure job at that time

with the Highway Department?

MR. BREEDEN: That's correct.

DR. CRAWFORD: How did you get the job with the Tennessee Valley Au-

thority?

MR. BREEDEN: Very early after the Tennessee Valley Authority Act was

passed why I got an application blank and submitted it.

I think I submitted my application blank probably in the latter part of May and

the first part of June of 1933.

DR. CRAWFORD: You applied for civil engineering work with TVA?

MR. BREEDEN: Yes sir.



DR. CRAWFORD: When did you have a reply from them?

MR. BREEDEN: About July of 1934.

DR. CRAWFORD: What work did they offer you?

MR. BREEDEN: About July of 1934 I came to the Knoxville office and

contacted certain people there and they told me at

that time that the work was branching out and they thought they could make me an offer within a month or two. This was probably August of 1934. The telegram that I got offering me work was about October 4, 1934. They suggested that if I accepted the job that I would begin work with TVA on October 16, 1934.

DR. CRAWFORD: And that's what you did, isn't it?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Do you remember who the first people were you talked

to at TVA?

MR. BREEDEN: Yes sir, I guess the first man that I contacted at TVA

was former professor of Civil Engineering at the Univer-

sity of Tennessee. He at that time was with TVA. He was Mr. Ervin Harsh.

DR. CRAWFORD: Did you remember him from school days?

MDR. BREEDEN: Yes, sir, I did. He also was proud to say that he

remembered me. I had a short interview with him and he was the person that told me that they had examined my file and they expected to make me an offer shortly. And then there was Mr. Frank W. Webster who was later head of the Highway and Railroad Division in TVA, I had worked for him all my period of time with the Tennessee Highway Department. So I was interviewed by him and then there were several others, Mr. R.E., Jr. who was in



charge of Highway and Railroad Plans in TVA and Mr. James Moreland, who had formerly been with Tennessee Highway Department. I felt like I was among old friends with all these people there.

DR. CRAWFORD: Where were you headquartered when you came to Knoxville?

Did you stay in the city or did you go out on the job?

MR. BREEDEN: I went right straight out on the job. I started to

work, my field work, at Corinth, Mississippi, October

17, 1934.

DR. CRAWFORD: What did you have to do in Knoxville before you went

to Corinth?

MR. BREEDEN: Very little. They just ran me through the Personnel

Department and signed a few forms and told me I was a

member of TVA and ready to go to work.

DR. CRAWFORD: How did you go to Corinth?

MR. BREEDEN: I went by railroad train.

DR. CRAWFORD: Did TVA help you find a place to live there, or were

you on your own about that?

MR. BREEDEN: No sir, I was on my own.

DR. CRAWFORD: What was the job to which you were assigned at Corinth?

MR. BREEDEN: I was on the location of an access highway into the

Pickwick Dam site. Now where it took off from the main

street highway was actually in Mississippi, but the access highway was about

eleven miles long and it went into Tennessee at the Pickwick Dam location.

DR. CRAWFORD: Did you have to work with the highway department of



several states in this or with Mississippi?

MR. BREEDEN: Just Mississippi. Actually most of the contacts that

were necessary were made by my superiors with the

Mississippi Highway Department.

DR. CRAWFORD: Did you live in Corinth through this time?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Was work and cooperation easy with the Mississippi

Department?

MR. BREEDEN: Very easy.

DR. CRAWFORD: How long did this job last?

MR. BREEDEN: The location job of this eleven miles road was completed

in about four months. I believe it was completed in

early January of 1935. I personally brought all the notes of location to the Knoxville office of TVA and turned them in to Highway and Railroad Division and they proceeded to work up the plans for this job because it was a rush job—access highways were always a rush job. I worked in this Knoxville office until about February 15 and then I started work in the Wheeler Reservoir. My location was at Athens, Alabama.

DR. CRAWFORD: Did you have equipment and men you needed for the work

at Corinth?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: What other people did you rely on for this work? Who

were the people that worked with you mostly?

MR. BREEDEN: Do you mean in the Knoxville office or on my work at the

access highway?



DR. CRAWFORD: Both if you please sir?

MR. BREEDEN: Well, it's been a long time and I have forgotten a

number of those people, but there's George Key and

James Key, Henry Kennedy and James Stewart, and Phil Allen and Frank Jones.

DR. CRAWFORD: Were they people on the scene at Corinth or were they

in the Knoxville office?

MR. BREEDEN: They were at Athens, Alabama at this time that I started.

DR. CRAWFORD: It was about January then of '35 when you moved from

Corinth to Athens?

MR. BREEDEN: That's right.

DR. CRAWFORD: What was the job that you started at Athens?

MR. BREEDEN: My job at the Wheeler Reservoir when I was located

at Athens, Alabama was the construction of three bridges across the Elk River.

The Elk River is a tributary to the Tennessee River and has an entrance into

the Tennessee River close to the present Ferry project. The river extends

up into Tennessee, but three of these bridges that I worked on were located in

the state of Alabama.

DR. CRAWFORD: And you had to build them because of the Wheeler Reservoir?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Had the building of Wheeler cut some of the older roads

or something?

MR. BREEDEN: Oh yes. They had a number of miles of highway (county

and state highway). I didn't do very much of the high-

way work. Most of my work was confined to these three large bridges which certainly took all my time.



DR. CRAWFORD: Well, did you construct these brigdes?

MR. BREEDEN: Yes sir. I was the supervising engineer on the con-

struction of them.

DR. CRAWFORD: What was your work in that part? Someone else had

done the design, I suppose, and others supplied the

material, and you supervised the building.

MR. BREEDEN: That is right. The bridges were designed in TVA's

Knoxville office and my work did strictly field work,

giving line and grade, and examining foundations, inspection as construction progressed.

DR. CRAWFORD: Were

Were they steel bridges?

MR. BREEDEN: Steel and concrete combination.

DR. CRAWFORD: Were they as good as the other bridges in the Alabama

area?

MR. BREEDEN: Yes. The one bridge near Rogersville, Alabama, was

new--constructed new and of a very high type. The other

two bridges were raised and improvements made in both of them.

DR. CRAWFORD: Why were they raised?

MR. BREEDEN: They were raised to meet navigation requirements on

the Elk River.

DR. CRAWFORD: I didn't realize that the Elk River had navigation on

it.

MR. BREEDEN: In its earlier days there was quite bit of navigation on

Elk River. The story that I got working there was that



Athens, Alabama itself was supplied by river traffic on Elk River at its nearest point which I believe was probably six or eight miles.

DR. CRAWFORD: Well, I knew of course, that they had navigation

on the Tennessee, but I didn't know about the Elk

River.

MR. BREEDEN: Yes it did have. There was no navigation on it

while I was working there, but prior to that there

had been.

DR. CRAWFORD: Did you find work in Alabama any different from

that in Mississippi?

MR. BREEDEN: No, sir.

DR. CRAWFORD: I suppose the engineering supervision was about the

same anywhere you were?

MR. BREEDEN: Same thing.

DR. CRAWFORD: You worked with the Highway Department in Alabama

I suppose?

MR. BREEDEN: Well, in conjunction with the Alabama Highway

Department, as I stated once before, the contacts

with the officials of the Alabama Highway Department were made by my superiors and my work was practically confined to the construction of these bridges.

DR. CRAWFORD: How long did this work last?

MR. BREEDEN: About one year from January of 1935 until January

of 1936.



DR. CRAWFORD: Where did you live during this time?

MR. BREEDEN: At Athens, Alabama.

DR. CRAWFORD: Did TVA help you find housing or did you take care

of that yourself?

MR. BREEDEN: I took care of that myself.

DR. CRAWFORD: Well, you had had a good deal of experience at it.

MR. BREEDEN: That's the truth!

DR. CRAWFORD: During this time were you becoming acquainted with

other people on the TVA staff?

MR. BREEDEN: Yes. I had frequent inspections from the Knoxville

office and meanwhile I believe that they had moved

several of the offices to Chattanooga. I had frequent visitors in conjunction with my work.

DR. CRAWFORD: Do you remember what people made these inspections?

MR. BREEDEN: From Mr. Webster on down. Mr. Webster was the head

Highway Engineer. That was his title and others

were Everett Scrogy, and Mr. Downey (I don't remember his given name) and James E. Moreland, Ervin Harsh and Kenneth Roberts.

DR. CRAWFORD: Is Mr. Webster still living?

MR. BREEDEN: No sir. Mr. Webster died in, probably 1961.

DR. CRAWFORD: How did this work for TVA compare with your work

for Tennessee Highway Department?

MR. BREEDEN: It was exactly along the same lines and I believe

that it was comparable in both respects. Both



in the Tennessee Valley Authority and Tennessee Highway Department. I think that inspection was a little bit more rigid in the Tennessee Highway Department for concrete work than the Tennessee Valley Authority.

Otherwise the two were comparable.

DR. CRAWFORD:

Did they proceed at about the same speed? Were

you able to make about the same sort of time in

construction as well as the other?

MR. BREEDEN:

Just about.

DR. CRAWFORD:

What about your machinery and supplies? Were you

as well supplied by TVA as you were by Tennessee?

MR BREEDEN:

Yes sir. Maybe better.

DR. CRAWFORD:

How were the comparative salaries with the people

who worked with you for example?

MR. BREEDEN:

Well, TVA salaries were much better than with the

Tennessee Highway Department. As I stated before,

it had gone through the Depression and Tennessee Highway Department salaries were looked on as very low. Tennessee Valley Authority's salaries were quite a bit higher to begin with and they increased more rapidly than Tennessee Highway Department's would have, by talking with my former friends in the highway department.

DR. CRAWFORD:

I don't suppose you had any difficulty getting

people to work for you?

MR. BREEDEN:

No, indeed. I had more applications than there

were jobs.



DR. CRAWFORD: Who selected the personnel who worked for you?

MR. BREEDEN: Usually it was selected by the Personnel Department

in the Knoxville [office]. I would make my request

to them for needed and required personnel and they would send these people to me.

DR. CRAWFORD: Were you pleased with the people they sent?

MR. BREEDEN: Yes. Usually they were high type people and qualified

for the work that we anticipated for them.

DR. CRAWFORD: With what people in the Personnel Department did you

work most closely?

MR. BREEDEN: It is so vague in my mind now. A Mr. Sherrill was

of the Personnel Department, Mr. Richie Hume I knew,

and he worked with me transmitting my requests and I don't know the names of very many of those people now.

DR. CRAWFORD: Didn't you feel that the Personnel Department under-

stood engineering needs?

MR. BREEDEN: Yes sir, they sure did.

DR. CRAWFORD: About how many people were you supervising at this

time?

MR. BREEDEN: At this time in Wheeler Reservoir I was supervising

about 10 or 11 persons.

DR. CRAWFORD: And they were all qualified, of course?

MR. BREEDEN: They were qualified for their work.



DR. CRAWFORD: Did you normally have some of the same people

working for you when you went from one job to

another, for example, when you went from Corinth to Athens?

DR. CRAWFORD: Yes sir, that was the rule that I would just trans-

fer the whole party or the whole number of men that

I could use on the new job. They would go more or less in a body.

DR. CRAWFORD: Did TVA have other crews or other groups doing the

same kind of work that you were doing?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Do you know how many they had?

MR. BREEDEN: No, I really don't, but they had four to six other

people. There were about six people of my class-

ification at that time doing the same work, as I recall. Each group was composed of about the same number of personnel and the same qualified personnel.

DR. CRAWFORD: Did you meet the other people who were doing the

same work?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Had you known any of them before?

MR. BREEDEN: Very few. Of the six I had known three. I had

known Mr. Crabtree, and Mr. Rush and Mr. Vesser.

DR. CRAWFORD: Were many of them from the Valley area?

MR. BREEDEN: Yes sir. It seemed to me like very many of them

were. Of this group of six I mentioned all were



from this area of the Tennessee Valley except one person.

DR. CRAWFORD: I know TVA sometimes employed engineers from other

areas of the country for some of their engineering

work.

MR. BREEDEN: That is correct.

DR. CRAWFORD: Did you learn much about engineers and engineering

in this work, meeting other people?

MR. BREEDEN: Oh yes.

DR. CRAWFORD: When you left Athens Mr. Breeden, where did you go?

MR. BREEDEN: Back to Corinth, Mississippi.

DR. CRAWFORD: What was going on there then?

MR. BREEDEN: Well, the construction of the surveys had been made,

for the relocation of the county and state roads and

highways in the Pickwick Reservoir. The Pickwick Reservoir roads were in three different states and they were in Tennessee, Alabama, and Mississippi.

But I was located at Corinth because that was more of a center of activity.

DR. CRAWFORD: What sort of roads did you build there?

MR. BREEDEN: County roads and I believe there were two sections

of state highway. One in Mississippi and one in

Alabama.

DR. CRAWFORD: What specifications did you follow in building

these roads?

MR. BREEDEN: Well, the contracts were written by the TVA Knox-

ville office--I mean the specifications were written



and they were a part of the contract between TVA and the Counties and the States. They were standard specifications, so to speak, for that type of road.

DR. CRAWFORD: I suppose they tried to match the roads to the others

in the county?

MR. BREEDEN: That is correct. They were looked on as comparable

or improvements over the existing roads.

DR. CRAWFORD: Do you think they were really improved?

MR. BREEDEN: I think they were a great improvement.

DR. CRAWFORD: They were dirt surface roads, I suppose-gravel?

MR. BREEDEN: Yes.

DR. CRAWFORD: In what ways were they better when you had them im-

proved?

MR. BREEDEN: The locations, the curves were smoother and the

grades were less. We had specifications that we

had no grade that would exceed over 6 per cent for the county and the state highways and then the alignment was a great improvement over the existing county roads.

DR. CRAWFORD: How did the people who lived in those areas think

about your work? Were they generally pleased with

it?

MR. BREEDEN: I think they were greatly pleased because they had

a right to think that because it was a great improve-

ment over the existing roads that were being replaced.



DR. CRAWFORD: How well did you get acquainted with each of these

communities? I know you moved around a great deal

and were in many parts of the Valley.

MR. BREEDEN: Well, I would make quite a few acquaintances with

the local people. We were working out on the job,

would frequently have our lunch, and stop by the grocery store and get a coke cola and we became acquainted with all these country merchants and their country stores and also people living in a community where it became handy to associate with them. We met a lot of them.

DR. CRAWFORD: You probably thus had a chance to learn what they

were thinking about TVA. Generally what were they

thinking about TVA?

MR. BREEDEN: It was kind of a mystery to them to begin with.

They didn't know how much they were going to be damaged by the roads we were relocating and they had quite a bit of anxiety. They gave us a lot of questions that we would answer to the best of our

knowledge.

DR. CRAWFORD: Did you find the people in general approved of TVA?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Did you find that more in some areas than in others?

MR. BREEDEN: I don't believe so. I believe that it was just gen-

eral that they felt like it was going to be something

that was going to mean a lot to them. They were very enthused about it.

I would say they cooperated where it was possible.



DR. CRAWFORD: Do you know how much road building you did at the

Corinth area in the couple of times that you were

there.

MR. BREEDEN: In the Pickwick Reservoir -- now that included the

roadwork in the three states -- amounted to about

70 miles. Now it is the combination of the county and the state highways. We also had a highway designation as a tertiary rocd, we called it, which was usually on private p_{ro} perty where some person was going to his house where his private road was damaged and we would have to correct that. But it was built to a lower standard than even the county or state highways.

DR. CRAWFORD: Were the people generally pleased for this tertiary

road building you did?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Did you have to build many of these tertiary roads?

MR. BREEDEN: Yes quite a few. I don't know how they would run

in percentage as to how to total mileage involved,

but probably it would be safe to say that ten percent of the mileage in a reservoir would be these tertiary roads.

DR. CRAWFORD: Were people inconvenienced very much before you

built these roads or did you get them established

in time?

MR. BREEDEN: They weren't damaged very much.

DR. CRAWFORD: Did you replace any paved roads in this time?

MR. BREEDEN: Yes sir. Where a county road was paved or a



state highway was paved we replaced it with pave-

ment. In other words it was a comparable replacement.

DR. CRAWFORD: Did you have all this machinery you needed yourself

or did you have to contract for any?

MR. BREEDEN: No, we had it all furnished by TVA.

DR. CRAWFORD: Was your work ever inspected by members of the

Board of Directors or other higher administrators?

MR. BREEDEN: No sir, I don't recall any men in capacity of the

Board of Directors ever having been on the job in

any of my jobs.

DR. CRAWFORD: Were the people who inspected your work generally

pleased with it?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: When you left the Pickwick job, what year was it?

How long did that job last?

MR. BREEDEN: That job lasted from January 1936 until I left

Pickwick Reservoir in May of 1938.

DR. CRAWFORD: Do you have any idea what mileage of roads you had

built in that time?

MR. BREEDEN About 70 miles.

DR. CRAWFORD: Had you lived in Corinth all that time?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Where were you sent next?

MR. BREEDEN: To Guntersville, Alabama in the Guntersville Reser-

voir.



DR. CRAWFORD: About how many men were working with you at that

time?

MR. BREEDEN: At the time I moved to Guntersville, my personnel

had been cut down by being sent to other reservoirs.

In fact, the job I went to in the Guntersville Reservoir was raising the Guntersville Bridge and it did not require the number of personnel that I had had at Corinth. I believe I had about eight men working for me at Guntersville?

MR. BREEDEN: That was a large bridge that had been built by the

Alabama Highway Department in the late 1920's. The

bridge was about 1800 feet long.

Ç

DR. CRAWFORD: That was a large bridge. Was it a metal bridge?

MR. BREEDEN: Yes. It was concrete and steel. The main span

across the river itself was about 900 feet long on

a continuous steep span and over four concrete piers. My job on this bridge was it had to be raised for navigation requirements when the Guntersville Reservoir was constructed. We had to raise this bridge 17 feet to comply with minimum navigation requirements. The approaches to the bridge, in addition to this 900 foot continuous steel span, were about 900 feet long and they were composed of shorter reinforced concrete spans about 50 feet long.

DR. CRAWFORD: How much did you have to raise this bridge and why?

MR. BREEDEN: The bridge was raised about 17 feet and due to the

reservoir it had interferred with minimum navigation



requirements and it was raised the 17 feet for that purpose.

DR. CRAWFORD: How do you go about raising an 1800 foot bridge?

MR. BREEDEN: That was a tremendous job. That was the most inter-

esting job that I had ever been on before or since.

The continuous steel span with its concrete floor on it weighed 1500 tons. It was raised by having 8 hugh jacks—4 of these jacks were 300 tons each and 4 of them were 150 tons each. They were all seated on the four piers and the bridge had to be raised, the specification called for it that it would not be more than one-eight of an inch out of level with its original seating at any one time. Each jack had two men working on it. A man stationed near the middle giving signals for the licks of the jack so that it was raised simultaneously like that and every twelve or fifteen licks they would call a halt and all points would be checked to see that it had varied more than this one-eighth of an inch in its original location.

DR. CRAWFORD: That's a very close limit.

MR. BREEDEN: That's correct.

DR. CRAWFORD: Did you meet that?

MR. BREEDEN: Yes sir. Each point had a gage so that it read to

the sixteenth of an inch so that it was easy to

detect at any time when any point was out or getting out more than the specifications would allow.

DR. CRAWFORD: How did the jack work?

MR. BREEDEN: They were hydraulic jacks that worked by oil. They

were an oil chamber and actually they worked by hand

with a long lever and two men on each lever to operate

them.



DR. CRAWFORD: How long had there been jacks like that available?

MR. BREEDEN: Well, I hesitate to say, but I suppose as far as

that type of equipment it was easily made avail-

able to TVA. I don't think they owned the jacks themselves, I think they

rented them. That was the only job that I had ever known of, that required

that kind of equipment up to that time.

DR. CRAWFORD: You have never done anything like that before?

MR. BREEDEN: No sir.

DR. CRAWFORD: I suppose that TVA had quite a bit of bridge

raising to do.

MR. BREEDEN: They certainly did. There were a number of jobs.

That was the first large one, but after that a

number of these state highway department bridges had to be raised to comply with navigational requirements.

DR. CRAWFORD: How long did that job last?

MR. BREEDEN: It lasted from May, 1938 until the last part of

the year about December 30th, 1938.

DR. CRAWFORD: Did you have to build the concrete piers to

place the jacks on?

MR. BREEDEN: No sir. They were the old existing piers.

The approach spans, had to have some work done

on their foundation. That was done by TVA. It was raised in the con-

DR.CRAWFORD:

crete.

Now for raising the approaches did you just

build them higher?



MR. BREEDEN: That is correct. It was a unique way of doing that

that TVA let a contract to Rust Engineering Company of Birmingham, Alabama and they had to build equipment of their own to do this job. The approach spans, as I mentioned before, were reinforced concrete spans about fifty feet long and they were raised by a piece of machinery that they call a gantry—it was a four—legged affair that stradled the existing bridge. And these approach spans were cut loose from the original foundation piers or bends and raised a few feet, turned through an angle of 90°, lowered back down to the ground, rested on the ground while the piers were raised. And then it was a reverse operation when they were raised why these original span was picked up off the ground and just set back up on its piers like it was a plaything.

DR. CRAWFORD: That took some large machinery, didn't it?

MR. BREEDEN: Yes sir.







THIS IS A PROJECT OF THE ORAL HISTORY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. THIS PROJECT IS "AN ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY." THE PLACE IS KNOXVILLE, TENNESSEE AND THE DATE IS APRIL 6, 1973. THE INTERVIEW IS WITH MR. SAM L. BREEDEN AND THE INTERVIEW IS BY DR. CHARLES W. CRAWFORD, DIRECTOR OF THE MEMPHIS STATE ORAL HISTORY RESEARCH OFFICE. TRANSCRIBED BY BETTY WILLIAMS. INTERVIEW #2.

DR. CRAWFORD: Mr. Breeden, I believe in our first inter-

view we had just finished your job at Gunters-

ville when you had the bridge raised and left that task at the end of the year 1938. Where did you go next and what did you do?

MR. BREEDEN: Beginning in January on the first of 1939 I

went to the Kentucky Reservoir to make

preliminary surveys on a portion of that reservoir from Waverly, Tennessee to Pickwick Dam. The purpose of these preliminary surveys was for Mr. Webster to write his report on the proposed work required in that portion of the Kentucky Reservoir.

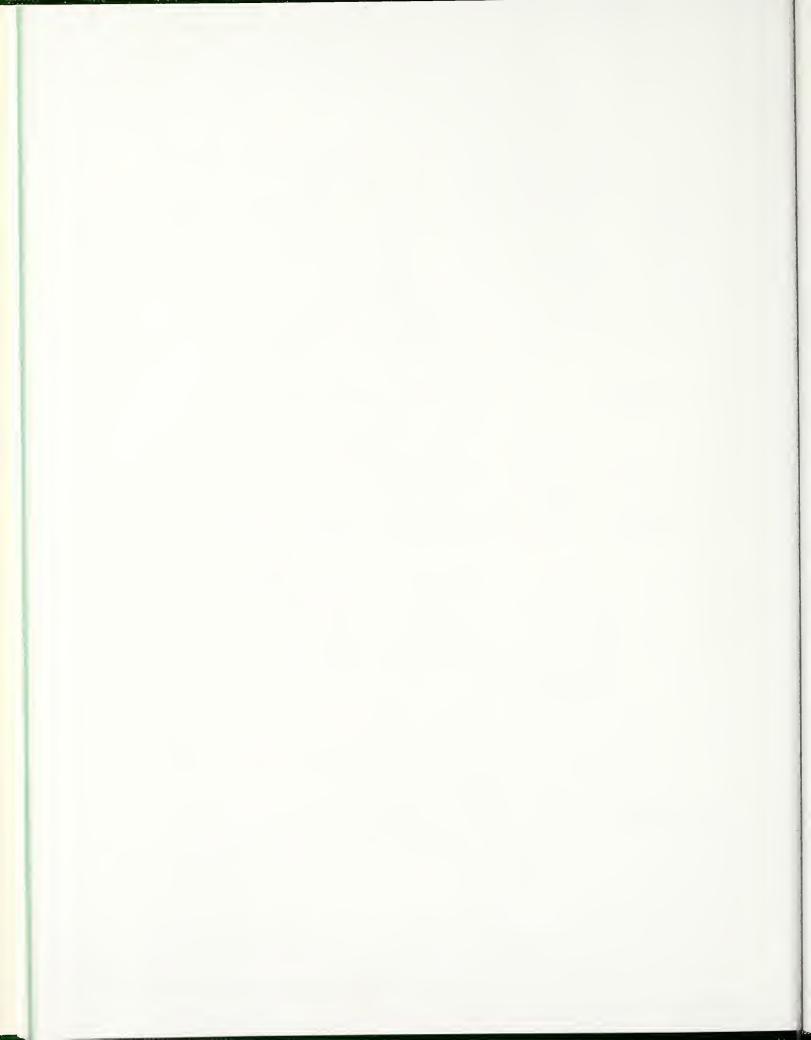
DR. CRAWFORD: How long did you stay at Kentucky Reservoir?

MR. BREEDEN: Six months. I left that area down there on

July 1, 1939.

DR. CRAWFORD: What had been involved in your work at

Kentucky Reservoir when you were there?



MR. BREEDEN: It was principally the running of profiles

of sections of road that were to be affected

by the Pickwick Reservoir and a proposal as to the relocation and making of an estimate for the cost of the construction. Now my part was purely the engineering field work—to run the profile and plot it and give it to Mr. Webster for his final analysis and indicating the new location and the extent of the location.

DR. CRAWFORD: Did you do a good deal of surveying in that

work?

MR. BREEDEN: Yes sir. We ran--right now I can't recall

the number of miles--but Kentucky Reservoir

had about 200 miles of relocated highways of all classes and I guess my portion for this preliminary work I imagine involved between eighty and a hundred miles of just ordinary profile work.

DR. CRAWFORD: What size party did you have working with

you?

MR. BREEDEN: I had just a ordinary field survey party--I

believe I had five men.

DR. CRAWFORD: Where did you stay? Did you live in the area?

MR. BREEDEN: From January 1, 1939 until April 1, I lived

at Waverly, Tennessee and from April 1, until

June 30th I lived at Savannah, Tennessee.

DR. CRAWFORD: Did you have a TVA car or truck?

MR. BREEDEN:

I had all TVA equipment--cars and engineering



equipment.

DR. CRAWFORD: This was spring and summer, I suppose you

generally had good weather for working?

MR. BREEDEN: Yes sir.

DR. CRAWFORD: Were you scheduled to complete this work by

July?

MR. BREEDEN:

Yes, the work was scheduled to be completed

by that time and we came out even.

DR. CRAWFORD: When were they due to start work on Kentucky

Dam?

MR. BREEDEN:

I hesitate to give a date for it because

over the long period of time I am not too

sure that the access road had not already been made into Kentucky Dam by another engineering party and they were probably working on the construction of that access road at this time.

DR. CRAWFORD: When you left that work where did you go?

MR. BREEDEN: To Rockwood, Tennessee, to work on Watts

Bar Reservoir.

DR. CRAWFORD: And that would have been in July 1, 1939.

MR. BREEDEN: Uh huh.

DR. CRAWFORD: You certainly didn't lose any time. You

seem to go directly to one job to the next.

MR. BREEDEN: That's correct.

DR. CRAWFORD: In Rockwood, you found a place to live, I



suppose, and then started the job.

MR. BREEDEN: Yes sir.

DR. CRAWFORD: What was your work there?

MR. BREEDEN: The work in Watts Bar Reservoir was comparable

to work in Pickwick Reservoir. The mileage in

Watts Bar Reservoir—my part of it—was probably 30 to 40 miles of location of county and state highways and tertiary highways. We were so far behind in our getting started with the road work in this reservoir. There was Mr. Crabtree, Willard Crabtree, who was the same classification that I was. He had already been at work there a little while when I started, and I imagine his portion of the mileage was about the same as mine. There was lots of highway mileage and roadway work to get done in Watts Bar Reservoir.

DR. CRAWFORD: And you were working again in cooperation

with the Tennessee Highway Department?

MR. BREEDEN: Yes sir, that is correct.

DR. CRAWFORD: Did you know many of the people still with

the department?

MR. BREEDEN: Yes sir. Yes, I knew a number of them.

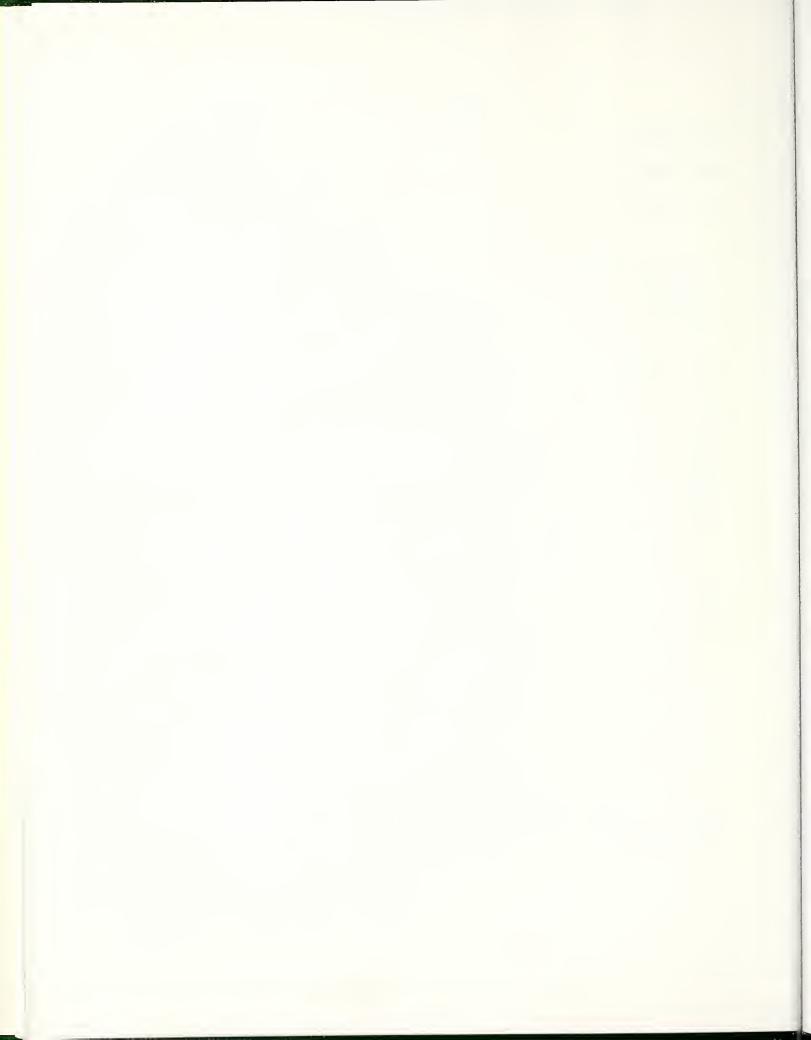
DR. CRAWFORD: How long did that project last--Watts Bar?

MR. BREEDEN: My work in Watts Bar Reservoir was from

July 1, 1939 until January, 1941. At that

time I was moved from the Watts Bar Reservoir to the Cherokee Reservoir.

DR. CRAWFORD: What month in '41 sir?



MR. BREEDEN: January of '41. My work that had been assigned

to me in Watts Bar Reservoir was not complete,

but a Mr. R. P. Holly was put in my place to supervise the remaining part of the work and I was transferred to Cherokee Reservoir principally on three large bridges there across the Holston River.

DR. CRAWFORD: What work did you do with them.

MR. BREEDEN: We constructed the bridge between Newport and

Morristown in a new location and one across

German Creek embayment, which is a part of our Cherokee Reservoir, and a new bridge across that area. Another known as a Melinda Ferry Bridge was dismantled and moved to a new location and then recreeted.

DR. CRAWFORD: By that time you had a good deal of experience

in relocating bridges.

MR. BREEDEN: Yes sir, I sure had.

DR. CRAWFORD: Was TVA generally getting more experienced in

what it was doing, by that time?

MR. BREEDEN: About the only way I can describe that is

after so much work had been done, there was

no really new type of work. There was just more or less doing the same thing over at a new location.

DR. CRAWFORD: You didn't have any special problems at Cherokee?

MR. BREEDEN: No, no special problems.

DR. CRAWFORD: Did you have about the same group of men work-

ing with you that you had before?



MR. BREEDEN:

Yes sir, I believe that our personnel in

Cherokee Reservoir--or what I called my

personnel—amounted to about 30 men at this time. I might drop back and say when I was working in Watts Bar Reservoir I had about 40 men and that included all my engineering personnel plus inspectors.

D.R CRAWFORD: Of that forty men, how would they be classified?

MR. BREEDEN: Instrument men, rodmen, chainmen and axmen,

are the usual designation of those survey

parties, and the total party would usually consist of five men. In Watts Bar Reservoir I had about one time six parties of five men each which would be about 30 men each and then about 5 or 6 inspectors, because some of the construction would be going along at the same time the location work was.

DR. CRAWFORD: The size of your group had been increasing,

hadn't it?

MR. BREEDEN: I beg your pardon?

DR. CRAWFORD: The size of your group has been increasing,

hadn't it?

MR. BREEDEN: Yes.

DR. CRAWFORD: Well, how long did the work at Cherokee last.

MR. BREEDEN: Part of the work in Cherokee lasted until

about February of 1942.

DR. CRAWFORD: Was the work still continuing at that time?



MR. BREEDEN: The roadway work was running way behind the

bridge work at that time. And other engi-

neering parties were doing the roadway location and construction in the

latter part of the time I worked in the Cherokee Reservoir.

DR. CRAWFORD: Why was the roadwork running behind?

MR. BREEDEN:

Just because it was so much mileage involved

and the war was coming on and people were

leaving for the armed services.

DR. CRAWFORD: When you left there in February of 1942 where

did you go?

MR. BREEDEN:

I had been stationed at Morristown during the

construction at Cherokee Reservoir and it was

at that time that Douglas Dam was started so I still remained at Morristown for the time that I worked at Douglas Reservoir which was up to the time of May. I was called to the armed services in May of 1942. My work had been completed in Cherokee Reservoir and it was just beginning at

Douglas.

MR. BREEDEN: Was it the same kind of work at Douglas.

DR. CRAWFORD: Were you surprised to be called into the

army?

MR. BREEDEN: I really was. I was 43 years old and I had

a reserve commission. Everybody had kidded me

and I thought myself I was too old to be in the army or to be in the armed services. I found out differently. (Laughter)



DR. CRAWFORD: They must have needed people with engineering

experience!

MR. BREEDEN: Well, strange to say, my reserve commission

was in the Corps of Engineers but when I was

called to the Armed Services I was put in the Ordnance Department doing just deals with firearms and the like.

DR. CRAWFORD: Well, what happened in your military experience?

What training did you go through?

MR. BREEDEN: Well, the first thing that I tried to do,

when I was called on active duty, I tried

to get removed from the Ordnance Department back into the Corps of Engineers, and it took me six months to accomplish that. Meanwhile, I was sent to ordnance schools to begin my training in ordnance. I was on duty at the same time with the troops in the Ordnance Department.

DR. CRAWFORD: Where were you stationed at that time?

MR. BREEDEN: I was called to duty at Tallahassee, Florida.

I had a number of moves then in succession

like I had in my engineering parties. I was only at Tallahassee a short while then moved to Wilmington, North Carolina for very short while and then back to Tampa, Florida and stationed at Drew Field.

DR. CRAWFORD: How long did you stay there?

MR. BREEDEN: I stayed there one year.

DR. CRAWFORD: What was your work at Drew Field?



MR. BREEDEN: Inspection of air fields that were under con-

struction. I was a roving inspector, so to

speak. I was making inspections on twelve different air fields while I

was stationed there at Drew Field and they were principally in Florida.

DR. CRAWFORD: How did you travel to these fields?

MR. BREEDEN: Frequently by plane. There was always some-

body that was trying to keep their flying time

built up and I'd grab my handbag and run down to the air depot and somebody would run out like a taxi driver and want to take me some place and I'd have no trouble whatever getting to go. I didn't care to fly any more than I had to. I usually arranged to either ride the train or bus when it was at all possible.

DR. CRAWFORD: How long did this assignment at Drew Field

last?

MR. BREEDEN: One year.

DR. CRAWFORD: Where did you go from there?

MR. BREEDEN: I went to Alaska.

DR. CRAWFORD: What was your work in Alaska and how long

did you stay?

MR. BREEDEN: Well, I was in Alaska about a total of

twenty-two months. You had to wait on air

travel days and days sometimes. I started from Drew Field, I believe it was July 1, 1944 and on my way I had to stop at Ft. Kern, Salt Lake City, for about two or three weeks and I went on to Seattle, Washington,



and I finally wound up in Anchorage, Alaska--I don't know--in August, probably in the middle of August, 1944, and I had to wait there, oh, several days to go on out to the Aleutian Islands. I was headed for Adak Island out in the Aleutian chain.

DR. CRAWFORD: What held you up so along the way?

MR. BREEDEN: Air schedules--air travel. Everybody bumped

everybody else for air travel.

DR. CRAWFORD: What was your work in Alaska and how did you

like it there?

MR. BREEDEN: My work in Alaska was on the. . . The Air

Force was building a big base on Adak Island.

They had been working there about one year and had it well along, but my work in Alaska was out of the Post Engineers Office and my work was principally laying out all the roads and looking after the construction of these roads on this island.

DR. CRAWFORD: Well, you were doing the thing that you had

experience with. Did you have any special

problems in road building?

MR. BREEDEN:

No, the only problem that I would call attention

to is that of the unstability of the soil there.

You did no good whatever to build a road unless you started at the same time you surveyed it—dumping rock on it. The soil was very unstable.

You could walk out on the ground and stop and in ten minutes you'll start settling down and there would be one inch or more of water around your



feet. You had to keep walking on the soil and naturally that type of soil would support no travel at all. They had a specification that no road-way would be built with less than three feet of large crushed stones and boulders for a foundation.

DR. CRAWFORD: When your work there ended, where did you go?

MR. BREEDEN:

I was out in the Aleutians about twenty-two

months and I stayed there until March 6, 1946,

and then I headed back for the states. Then I was separated from the service, I believe, on March 28, 1946 at Ft. Smith, Arkansas and back to my home, Decatur, Tennessee, for awhile.

DR. CRAWFORD: I suppose you were all ready for a vacation?

MR. BREEDEN: (laughter) Yes. I really was!

DR. CRAWFORD: When did you go back to work for TVA?

MR. BREEDEN: I started back to work for TVA on the first

of May 1946.

DR. CRAWFORD: What position were you given then?

MR. BREEDEN: I was given back my same title and classifi-

cation and the same type of work that I

had been doing all along and was sent to South Holston Reservoir.

DR. CRAWFORD: What was your title then?

MR. BREEDEN: It was Highway Engineer.

DR. CRAWFORD: What was your duty at the South Holston

Reservoir?



MR. BREEDEN: The same as had been in prior work in the

reservoirs -- location and construction of

roads that had to be replaced. In the South Holston there was construction of two large bridges--two large concrete and steel bridges.

DR. CRAWFORD: Were you surprised to see TVA still building?

MR. BREEDEN:

No, I had kept in touch with a lot of my

friends during the time I was away in service

and they kept me posted, so to speak, as to what was being done. I knew in a way what was in store.

DR. CRAWFORD: So in your work for South Holston Reservoir

you were doing highway relocation. Did you

do any bridge work?

MR. BREEDEN: Yes, on two large bridges. One bridge had

a pier 200 ft. high.

DR. CRAWFORD: What did you do? Did you use a jack?

MR. BREEDEN: No, that was just construction from a

foundation up.

DR. CRAWFORD: How long did that work last?

MR. BREEDEN: Work in South Holston Reservoir lasted from

'46 until sometime in '49.

DR. CRAWFORD: And where did you go then?

MR. BREEDEN: From South Holston (I had my headquarters

in Bristol and I remained at Bristol) but by



that time they had started Boome Reservoir which is a smaller reservoir on the Holston River. And I still stayed at Bristol, but did work on the Boone Reservoir. And the duration of that was from 1949 to about 1952. That was the same kind of work. I believe that was about fifteen miles of roadway relocation and construction and three large bridges in that reservoir.

DR. CRAWFORD: Did you relocate the bridges?

MR. BREEDEN: Yes.

DR. CRAWFORD: From Boone Reservoir where did you go?

MR. BREEDEN: For Boone Reservoir I remained at Bristol

and moved on down to the Patrick Henry

Reservoir which was on further down the river from Boone and the Patrick Henry Dam is near Kingsport, Tennessee.

DR. CRAWFORD: How long did you work there?

MR. BREEDEN: The work in Patrick Henry Reservoir lasted

about two years. That was from 1952 to

1954.

DR. CRAWFORD: Well, you still had a little time left.

And what did you do for the remainder of

your TVA career. (Laughter)

MR. BREEDEN: Dams were just about all built. There was

no more field work so I realized at that

time that since I was strictly a field man and a construction man that



my work must be limited with TVA so I was then assigned to a small construction job on Caney Fork River over in Warren County. It was a construction of a bridge across Collins River and that was done between August of 1954 and May of 1955.

DR. CRAWFORD:

Well, did you decide to leave TVA then when

that job was finished?

MR. BREEDEN:

They decided that. I was terminated due to

the lack of any work coming up that was parallel

to my line of work. I was terminated on May 30, 1955.

DR. CRAWFORD:

Were you under the TVA pension plan then?

MR. BREEDEN:

Yes.

DR. CRAWFORD:

And since that time you have been living in

Knoxville?

MR. BREEDEN:

No, I knew that my work was fast coming to an

end there with TVA so I made application back

with Tennessee Highway Department in probably April 19 1955. And they gave me an immediate reply that I could start work back with the Tennessee Highway Department in the Nashville office any time that I left TVA.

DR. CRAWFORD:

So that's where you went next?

MR. BREEDEN:

Yes sir, I went back to the Tennessee Highway

Department in Nashville starting on June 1,

1955.

DR. CRAWFORD:

How long did you stay there?

MR. BREEDEN:

I retired on November 2.



DR. CRAWFORD: You really had two careers, but they were

both very much alike.

MR. BREEDEN: Yes.

DR. CRAWFORD: Not to mention your military service.

MR. BREEDEN:

I frequently said with my forty-seven years

of continuous work I had two employers --

Tennessee Highway Department, first and last, and TVA in between.

DR. CRAWFORD: Well, having seen a great deal of it what

do you think of the quality of TVA's road

building and bridge work around the reservoirs?

MR. BREEDEN: The highest type and of the best quality.

DR. CRAWFORD: I would say they certainly had experienced

and capable people working on it. Thank

you very much Mr. Breeden.

MR. BREEDEN: Thank you.













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